

**Notice of Allowability**

Application No.

10/805,227

Applicant(s)

HIRABAYASHI, OSAMU

Examiner

Steven D. Radosevich

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2138

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/25/06.
2. ☒ The allowed claim(s) is/are 1 and 3-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material

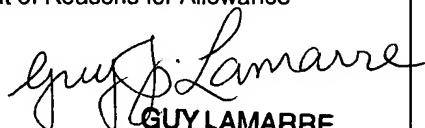
5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other \_\_\_\_\_

  
GUY LAMARRE  
PRIMARY EXAMINER

### **DETAILED ACTION**

Claims 1-20 are present for examination.

#### ***Priority***

Acknowledgement is made that the application is claiming priority to the date 01/16/2004 from a foreign Japanese Patent Applicant (No. 2004-009329) as indicated within the specification and within the application data sheet submitted to the office upon filing.

#### ***Drawings***

The drawings are accepted as was indicated within prior examination of the instant applicant.

#### ***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance:

Claims 1-20 are allowable.

The present invention pertains to an integrated circuit with a memory having an ECC correction function. The claimed invention recites features such as: "...an ECC circuit that has an error correction function N (N is an natural number) bits for output data of a memory; an error detection circuit configured to output a signal indicative of the following fact, if a total of an error bit number n1 detected by the ECC circuit when a first data pattern in testing target addresses of the memory is read out and an error but number n2 detected by the ECC circuit when a second data pattern that is an inversion of the first data pattern in at least a part of the testing target addresses is read out exceeds N; and a BIST circuit configured to read the first data pattern out of the testing

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target addresses of the memory as a first operation, write the second pattern in at least part of the testing target addresses as a second operation, and read out the written second data pattern, wherein the first data pattern has been corrected by the ECC circuit and is input to the BIST circuit."

None of the prior arts of record, either taken by itself or in any combination, would have anticipated or made obvious the following limitations combined with the above limitations at or before the time the invention was filed: "...an ECC circuit that has an error correction function  $N$  ( $N$  is a natural number) bits for output data of a memory; and an error detection circuit configured to output a signal indicative of the following fact, if a total of an error bit number  $n1$  detected by the ECC circuit when a first data pattern in testing target addresses of the memory is read out and an error bit number  $n2$  detected by the ECC circuit when a second data pattern that is an inversion of the first data pattern in at least a part of the testing target addresses is read out exceeds  $N$ ."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

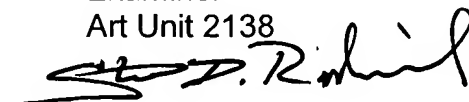
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Radosevich whose telephone number is 571-272-2745. The examiner can normally be reached on 9am-5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 571-272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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